

Date: Sat, 14 Aug 93 04:30:13 PDT  
From: Ham-Equip Mailing List and Newsgroup <ham-equip@ucsd.edu>  
Errors-To: Ham-Equip-Errors@UCSD.Edu  
Reply-To: Ham-Equip@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Equip Digest V93 #10  
To: Ham-Equip

Ham-Equip Digest                      Sat, 14 Aug 93                      Volume 93 : Issue    10

Today's Topics:

                    FT-5100 is garbage (Hmmm...)  
                                HF Mobile Rigs  
         Icom 725 TX (legally!!) outside ham bands??? mods???  
                    New Atlas 310 radio

Send Replies or notes for publication to: <Ham-Equip@UCSD.Edu>  
Send subscription requests to: <Ham-Equip-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Equip Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-equip".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 14 Aug 93 02:28:46 GMT  
From: usc!howland.reston.ans.net!newsserver.jvnc.net!netnews.upenn.edu!feith1!  
kd3bj!chris@network.ucsd.edu  
Subject: FT-5100 is garbage (Hmmm...)  
To: ham-equip@ucsd.edu

coffin@ced.utah.edu (Steve Coffin) writes:

>Well I'm sorry to have to report that the brand new Yeasu FT-5100 that  
>I just bought has a very bad intermod problem....

Now I'm sure you are right in what you are saying, mind you, but just  
for a second let's give Yaesu the benefit of the doubt. Several questions  
come to mind.

Has anyone measured the IPIP3 of the FT-5100? Can anyone confirm  
quantitatively that it has poor intermod performance?

Intermods can be caused by the "rusty bolt" effect. Are you absolutely

sure that all your antenna connections are tight? How about grounds?  
How about the rest of the car---any oxidized connections can cause  
intermod. Is your feedline new? Is it dry inside?

Are you, perhaps, tuning outside the ham band and expecting clean  
performance. I've noticed that the 5100 has quite a few spurs above  
150 MHz.

Are you working simplex when you hear these "intermods"? If not,  
possibly the repeater antenna is on a tower with other strong transmitters  
and the intermod is caused there.

Are you really sure these are intermods that you are hearing. Intermod  
math is really quite easy. Can you reliably tune in  $2 f_1 - f_2$  and  
 $2 f_2 - f_1$  products? Do they exist for any  $(f_1 - f_2)$  spacing, or only  
for very narrow spacings?

I've used a FT-5100 for quite a while now and always found it to be  
a solid, reliable, clean rig. But I must admit that I have never measured  
its IPIP2 or IPIP3, image rejection, IF rejection, 1 dB compression,  
or any other parameter that could decide if it really merits such a  
negative review.

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73 de KD3BJ (Chris Nadovich, [chris@flam.com](mailto:chris@flam.com))

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Date: 13 Aug 1993 13:36:11 GMT  
From: [dog.ee.lbl.gov](mailto:dog.ee.lbl.gov)![overload.lbl.gov](mailto:overload.lbl.gov)![agate!howland.reston.ans.net](mailto:agate!howland.reston.ans.net)![news.ans.net](mailto:news.ans.net)!  
[malgudi.oar.net](mailto:malgudi.oar.net)![news.ysu.edu](mailto:news.ysu.edu)![yfn.ysu.edu](mailto:yfn.ysu.edu)![ag821@network.ucsd.edu](mailto:ag821@network.ucsd.edu)  
Subject: HF Mobile Rigs  
To: [ham-equip@ucsd.edu](mailto:ham-equip@ucsd.edu)

Hi,

I am working on an article about HF mobiling. I would  
appreciate any comments/suggestions/personal experiences  
with different HF mobile rigs.

Rigs considering so far:

Yaesu:

757GX, GXII, 890

Icom:

725, 7356

Kenwood:

430, 440, 450, TS50

Ten Tec:  
Delta II, Scout, Argonaut

MFJ:  
QRP CW rigs

thanks

73

Jeff, AC4HF

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Jeff M. Gold, AC4HF  
Manager, Academic Computing Support  
Tennessee Technological University

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Date: Fri, 13 Aug 1993 15:15:42 GMT  
From: psgrain!ee.und.ac.za!hippo.ru.ac.za!pukrs7.puk.ac.za!rkwdp.puk.ac.za!  
rkwdp@uunet.uu.net  
Subject: Icom 725 TX (legally!!) outside ham bands??? mods???  
To: ham-equip@ucsd.edu

Fellow Hams

I wonder if it is possible for the Icom 725 HF transceiver to be  
modified to transmit (legally licenced for private use)  
outside the legal ham bands e.g. 5 Mhz. Are there any mods  
available??

Thanks in advance

Danie Pretorius (ZS4VG)  
Potchefstroom  
Rep. of South Africa  
e-mail: RKWDP@PUKNET.PUK.AC.ZA  
or RKWDP@PUKVM1.PUK.AC.ZA

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Date: Fri, 13 Aug 1993 20:03:09 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!  
vixen.cso.uiuc.edu!bradley.bradley.edu!augustana.edu!gganderson@network.ucsd.edu  
Subject: New Atlas 310 radio  
To: ham-equip@ucsd.edu

I had posted a message to this group a couple of weeks back asking for information on a new radio by Atlas. Well, I contacted the company and just got a blurb sheet today in the mail. They (Herb Johnson) are still in business. To share with the group, I've typed in the information from the brochure describing their new radio. I've also included a history that had also been provided on the brochure.

kevin anderson

geography department, augustana college, rock island, illinois  
gganderson@augustana.edu

KB9xxx (to be filled in by FCC, Novice exam taken June 30th  
under old pre-VEC procedures with two general class  
or above licensees)

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ATLAS Radio introduces....The NEW Model 310 HF Tranceiver  
for SSB, CW, Packet and Amtor.

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\* Features DDS (Direct Digital Synthesis) Frequency Control.

\* COVERS ALL 9 AMATEUR RADIO HF BANDS: Transmits and receives from 1.8 to 29.7 Mhz, and includes MARS and CAP frequencies. It will also receive all the HF Marine frequencies, as well as short wave broadcasting. (Note: As a transmitter, the 310 is designed only for amateur radio bands. It is not type accepted for transmission in the marine frequencies.)

\* POWER OUTPUT: 150 watts PEP in SSB mode, 120 watts on CW, 80 watts on Packet and AMTOR. No transmitter tuning is required. Power is panel adjustable from 5 watts to full power. Rated power output requires 13.8 volts DC at the rear power connector with full transmit power. Lesser voltage will reduce power accordingly.

\* DIGITAL FREQUENCY DISPLAY: 7 digit readout to 10 Hz increments. Digits are LCD (liquid crystal display) 0.4 in. high, are back lighted for easy reading in light or dark surroundings.

\* STANDARD FEATURES INCLUDE:

- a) Break-in CW keying
- b) Upper/lower sideband selection
- c) PBT, Pass Band Tuning control

- d) Internal speaker, top mounted
- e) Noise blanker
- f) The DDS has dual frequency capability which permits separate transmit and receive frequencies anywhere in the band, as well as the advantages of RIT

\* DDS, Direct Digital Synthesis, is a state-of-the-art system for generating the injection frequency required by the receiver front end mixer. The DDS chip is a product of Qualcomm, a San Diego, California company. It provides an extremely clean and stable output to the mixer, in both receive and transmit modes. The mixer is a Mini-Circuits component which assures high standards of receiver performance. Typical Receiver Specs: .25 microvolt sensitivity, Dynamic Range: 134 db, 3rd Order Intercept: 18 dBm. There is NO PLL (Phase Lock Loop).

\* SINGLE CONVERSION SUPERHETERODYNE. The DDS LO output converts the received signal to an Intermediate Frequency of 9 Mhz. A bank of 7 band pass filters provide more than 85 db image suppression. Each filter has 9 poles. Single conversion provides superior performance to multiple conversion, and enhances the KISS principle.

\* SWITCHABLE CRYSTAL FILTER: Standard feature provides choice of 3 band widths: 2.7 khz for normal SSB, 1.8 khz for narrow SSB in crowded band conditions, and 0.6 khz for narrow band CW. 6 to 60 Shape Factor is 1.4 to 1 in the 2.7 khz bandwidth position.

\* DC POWER REQUIREMENTS: 12-14 volts at 500 Milliamps for receive, up to 22 amps for transmit. Average with SSB modulation will be approx. 8 amps.

\* PHYSICAL SPECS.: 9 in wide, 3.5 in high, by 9 in deep. Total weight, less power supply, 8 lbs.

\* FACTORY DIRECT INTRODUCTORY PRICE: \$795

\* OPTIONS:

Power supply Console for 110/220 volts AC, 50-60 Hz \$189  
(plugs directly into the back)

Deluxe Mobile Mount (into which the Atlas 310 plugs) \$ 69

MADE IN THE USA

ATLAS RADIO CO.  
1556 Lower Lake Ct.  
Cardiff, CA 92007  
(619) 944 - 9622

Disclaimer: I am not in any way affiliated with Atlas Radio,  
nor do I have stock in the company, own any of their products,  
will not receive compensation for providing this information,  
nor in any way recommend or not recommend this product.

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Date: (null)  
From: (null)  
The History of Atlas Radio Company:

Since Atlas is again entering the HF Transceiver market,  
the following is a brief recap of the company's history.  
Herb Johnson, W6QKI, was the founder of Swan Electronics  
in 1961, manufacturing the first generation of highly  
successful SSB/CW Transceivers for the amateur radio  
market. In 1967 he merged Swan with Cubic Corp. of  
San Diego, and continued managing the Swan subsidiary  
until 1973. The Swan line of equipment was mostly tube  
type design, and through the years more than 80,000  
Swan Transceivers were sold. A high percentage of them  
are still on the air, putting out strong, good quality  
signals. (The name "Swan" was chosen in memory of Herb's  
dad, whose name in the old country, Sweden, was Sven, but  
was Americanized to Swan when he came to the U.S.A.)

In 1974, Herb started his second company and named it  
Atlas Radio (after the 1924 vintage diesel engine in the  
1924 motor vessel, "Westward", owned and skippered by  
his friend, Don Gumpertz, K60F). Atlas introduced the  
first really successful all solid state transceiver.  
In this design he had valuable assistance of Les Earnshaw,  
founder of Southcom International. The original model  
180 covered the 160, 80, 40, and 20 meters. In 1975,  
the 210 and 215 models evolved, followed by the 210X  
and 215X improvements in 1976. (The 210 series covered  
the bands from 80 through 10 meters, while the 215 covered  
160 through 15.) There were over 19,000 of these models  
sold. They were developed under the "KISS" principle

("Keep-It-Simple-Stupid"), and the design set new standards for high performance and reliability, as well as being practically bullet proof. The big majority of these early Atlas radios are still in service, and are not easy to find on the used market.

"The Swan transceivers were what I like to think of as my first generation of SSB HF Transceivers," says Herb. "They were then followed by my second generation, the Atlas transceivers of the 70's."

"And, so here we are, back again, this time with the third generation, the brand new Atlas 310. I'm sure you'll find the 310 to be as innovative and exciting as the 210 was 18 years ago, with many additional features to make it the radio of the 90's. The general design philosophy is the same 'KISS' principle, but without compromise in any area. In state-of-the-art technology, performance, and reliability, the 310 takes a back seat to no one."

73 Herb Johnson W6QKI

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End of Ham-Equip Digest V93 #10  
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